

Allan J. Westlie
GAF Everguard Manufacturing
6101 Lower New Harmony Road
Mt. Vernon, IN 47630

Re: Exempt Construction and Operation Status
129-12635-00046

Dear Mr. Westlie:

The application from GAF Everguard Manufacturing, received on August 18, 2000, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-1.1-3, it has been determined that your emission source, an extruded plastic roofing shingle manufacturing plant located at 6101 Lower New Harmony Road, Mt. Vernon, IN 47630, is classified as exempt from air pollution permit requirements. The emission source consists of the following emission units:

- (a) one (1) core layer extruder line, identified as EX-1, with maximum capacity of 1800 pounds per hour.
- (b) one (1) cap layer extruder line, identified as EX-2, with maximum capacity of 2350 pounds per hour.

The following conditions shall be applicable:

1. Pursuant to 326 IAC 6-3-2 (Particulate Emissions Limitations), particulate matter (PM) emissions shall be limited by the following equation for process weight rates up to sixty thousand (60,000) pounds per hour:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

For a process weight rate of 2.075 tons per hour, the equation states an emission limit of 6.69 pounds of particulate matter per hour.

2. Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following:
 - (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
 - (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute non-overlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Management (OAM) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Any change or modification which may increase the potential volatile organic compound emissions to ten tons per year or more from the equipment covered in this exemption letter must be approved by the Office of Air Management (OAM) before such change may occur.

Sincerely,

Paul Dubenetzky, Chief
Permits Branch
Office of Air Management

ARD

cc: File - Posey County
Posey County Health Department
IDEM - Southwest Regional Office
Air Compliance Section Inspector - Scott Anslinger
Compliance Data Section - Karen Nowak
Administrative and Development - Janet Mobley
Technical Support and Modeling - Michele Boner

Indiana Department of Environmental Management Office of Air Management

Technical Support Document (TSD) for an Exemption

Source Background and Description

Source Name:	GAF Everguard Manufacturing
Source Location:	6101 Lower New Harmony Road, Mt. Vernon, IN 47630
County:	Posey
SIC Code:	3069
Application No.:	129-12635-00046
Permit Reviewer:	Allen R. Davidson

On August 18, 2000, the Office of Air Management (OAM) received an application from GAF Everguard Manufacturing relating to the construction and operation of an extruded plastic roofing shingle manufacturing plant. The new emission source would consist of the following emission units:

- (a) one (1) core layer extruder line, identified as EX-1, with maximum capacity of 1800 pounds per hour.
- (b) one (1) cap layer extruder line, identified as EX-2, with maximum capacity of 2350 pounds per hour.

History

This application is the first received for this emission source.

Enforcement Issues

There are no enforcement actions pending against this emission source.

Stack Summary

There are no stacks associated with this emission source.

Recommendation

The staff recommends to the Commissioner that the revision be approved as an exemption. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on August 18, 2000.

Emission Calculations

See Appendix A of this document for detailed emissions calculations. (1 page)

Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA.”

The new source potential to emit is as follows:

Pollutant	Potential To Emit (tons/year)
PM	4.1
PM-10	4.1
SO ₂	0
VOC	7.6
CO	0
NO _x	0

HAP's	Potential To Emit (tons/year)
TOTAL	< 0.01

The potential to emit (as defined in 326 IAC 2-7-1(29)) volatile organic compounds (VOC) is less than ten tons per year, and the potential to emit particulate matter is less than five tons per year. Therefore, the application does not require review under 326 IAC 2-5.1 and can be classified as exempt under 326 IAC 2-1.1-3.

This source is not a major source for Prevention of Significant Deterioration, 326 IAC 2-2. No attainment regulated pollutant has the potential to emit at a rate of 250 tons per year or more, and it is not in one of the 28 listed source categories.

Actual Emissions

This is a new emission source. No previous emission data has been received from the source.

County Attainment Status

The source is located in Posey County.

Pollutant	Status
PM-10	attainment
SO ₂	attainment
NO ₂	attainment
Ozone	attainment
CO	attainment
Lead	attainment

Volatile organic compounds (VOC) and oxides of nitrogen (NO_x) are precursors for the formation of ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to the ozone standards. Posey County has been designated as attainment or unclassifiable for ozone.

Posey County has been classified as attainment or unclassifiable for particulate matter less than ten microns in diameter (PM-10). Therefore, PM-10 emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Federal Rule Applicability

There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.

There are no National Emission Standards for Hazardous Air Pollutants (NESHAP)(326 IAC 14 and 40 CFR Part 63) applicable to this source.

State Rule Applicability - Entire Source

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants)

This source is not subject to 326 IAC 2-4.1-1 (New Source Toxics Control). The source does not have potential to emit 10 tons per year of any HAP or 25 tons per year of any combination of HAP.

326 IAC 2-6 (Emission Reporting)

This source is not subject to 326 IAC 2-6 (Emission Reporting), because it does not have the potential to emit more than one hundred (100) tons per year of any pollutant specified in the rule.

326 IAC 5-1 (Visible Emissions Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following:

- (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Individual Facilities

326 IAC 8-1-6 (General VOC Reduction Requirements)

The facilities are not subject to 326 IAC 8-1-6 (General Reduction Requirements) because the potential to emit volatile organic compounds is less than twenty-five (25) tons per year. Therefore, the BACT (best available control technology) requirements do not apply.

326 IAC 6-3-2 (Particulate Emissions Limitations)

This emission unit is subject to 326 IAC 6-3-2. Pursuant to 326 IAC 6-3-2 (Particulate Emissions Limitations), particulate matter (PM) emissions shall be limited by the following equation for process weight rates up to sixty thousand (60,000) pounds per hour:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

For a process weight rate of 2.075 tons per hour, the equation states an emission limit of 6.69 pounds of particulate matter per hour.

Conclusion

The construction and operation of this source shall be subject to the conditions of the attached Exemption 129-12635-00046.

Appendix A: Emissions Calculations

Company Name: GAF Everguard Manufacturing
Address City IN Zip: Mt. Vernon, IN 47630
ID: 129-12635-00046
Reviewer: Allen R. Davidson
Date: 10/02/00

DFBE:	48000 lb used *	1 day *	1 ton =	1 ton used/hr	
	day	24 hr	2000 lb		
	1 ton used *	0.053 lb PM *	8760 hr *	1 ton =	0.23 ton PM/yr
	hr	ton	yr	2000 lb	
	1 ton used *	0.0614 lb VOC *	8760 hr	1 ton =	0.27 ton VOC/yr
	hr	ton	yr	2000 lb	

CEFOR:	4560 lb used *	1 day *	1 ton =	0.095 ton used/hr	
	day	24 hr	2000 lb		
	1 ton used *	0.436 lb PM *	8760 hr *	1 ton =	1.91 ton PM/yr
	hr	ton	yr	2000 lb	
	1 ton used *	0.874 lb VOC *	8760 hr *	1 ton =	3.83 ton VOC/yr
	hr	ton	yr	2000 lb	

HDPE:	4560 lb used *	1 day *	1 ton =	0.095 ton used/hr	
	day	24 hr	2000 lb		
	1 ton used *	0.053 lb PM *	8760 hr *	1 ton =	0.23 ton PM/yr
	hr	ton	yr	2000 lb	
	1 ton used *	0.0614 lb VOC *	8760 hr *	1 ton =	0.27 ton VOC/yr
	hr	ton	yr	2000 lb	

Max capacity of extruders: 4150 lb/hr
 Applicant's data based on: 2380 lb/hr
 Conversion factor: 1.74

Total PM: 2.37396 ton/yr * 1.74 = 4.14 ton PM/yr
 Total VOC: 4.365984 ton/yr * 1.74 = 7.61 ton VOC/yr

The following calculations determine compliance with 326 IAC 6-3-2:

$$\begin{aligned}
 E &= 4.1 * (2.075 ^{0.67}) = 6.69 \text{ lb/hr} \\
 6.69 \text{ lb/hr} * 8760 \text{ hr/yr} / 2000 \text{ lb/ton} &= 29.29 \text{ ton/yr} \quad (\text{will comply})
 \end{aligned}$$